



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/890,715	12/31/2001	Micheal Butsch	01-407	7784

7590 11/14/2002

Bachman & LaPointe
900 Chapel Street Suite 1201
New Haven, CT 06510-2802

EXAMINER

WEBB, SARAH K

ART UNIT

PAPER NUMBER

3731

DATE MAILED: 11/14/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

LC

Office Action Summary	Application No.	Applicant(s)	
	09/890,715	BUTSCH ET AL.	
	Examiner	Art Unit	
	Sarah K Webb	3731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed 12/31/2001 fails to comply with 37 CFR 1.98(a)(1), which requires a list of all patents, publications, or other information submitted for consideration by the Office. It has been placed in the application file, but the information referred to therein has not been considered. This is in reference to the patents included with the International Search Report.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 9-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- The phrase “in particular” in claims 9 and 14 is indefinite, because it is unclear whether the limitations following the phrase are part of the claimed invention. The remaining claims, which are dependent from either 9 or 14, are also indefinite for this reason.
- Claim 12 contains the phrase “if necessary”. It is very unclear what is to be included in the claimed invention.
- The phrase “and/or” renders claims 17, 22, and 24 indefinite.
- Regarding claim 20, “*like a hollow shaft*” is indefinite, and “*the end face*” has no antecedent basis. Also, the examiner suggests changing “projects at” to “projects towards” in order to help clarify the claim language.

Art Unit: 3731

- Regarding claim 25, no structure or specific steps are recited, so it is unknown as to what the applicant is claiming.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 9-12,14,25 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 5,259,842 to Plechinger et al.

As shown in Figure 1, Plechinger discloses a high-pressure liquid cutting system.

A pressure-generating device (2) is connected to a cutting nozzle (12). More specifically, the pressure container (48) of the pressure-generating device (2) is connected to the nozzle (12). The supply reservoir (34) contains the severing liquid (4) and is connected to the pressure-generating device (2) in an interchangeable, or replaceable manner (column 4, lines 17-19). The supply reservoir (34) is held inside a pressure cylinder (46), which is detachably connected to the pressure head (70) by bayonet lock (column 5, lines 29-32). The pressure-generating device (2) has a linear drive, or piston (74) that applies pressure to a plunger (62) located in the supply reservoir (column 5, last paragraph).

4. Claims 14-19,21,25 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 5,853,384 to Bair.

Bair discloses a fluid jet cutting device that has a nozzle opening (39) provided radially in a handpiece (21) (see Figure 3). The nozzle handpiece (21) has a shut-off

Art Unit: 3731

element, or piston (36), with a shoulder (37); wherein the shoulder selectively closes nozzle opening, or port (39) and allows for pulsed fluid flow (column 4, line 64 through column 5, line 3). The shut off element (36) moves in a translating manner (column 4, line 65). A gap (51) is formed between the cutting nozzle body (21) and the shut off element (36), and the severing fluid flows in this gap (51) (column 5, lines 25-27).

Pressure is applied axially to the shut off element shoulder (37) by an energy storage element, or driving chamber (34) (column 5, lines 35-40).

5. Claims 14,15,21, and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 0 258 901 to Kobayashi et al.

Kobayashi discloses a cutting nozzle element (1') with an opening (35) through which a severing medium flows, as illustrated in Figures 8 and 9. A shut-off element (42) is included in the handpiece and is illustrated in Figure 10. The office considers all the structure in Figure 10 to be part of the shut-off element (42). Elastic tubes (41 and 3) adjoin the shut-off element (column 9, line 49), which moves in a translating fashion. The shut-off element is within the body of the cutting nozzle element. An energy-storing element, or spring (43) applies pressure to a shoulder of the shaft, which closes off the opening (32).

6. Claims 14,15,23,24 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 5,620,414 to Campbell, Jr.

Campbell discloses a cutting nozzle element for a fluid jet cutting system, through which a severing medium is fed. (see attachment for structure considered part of the cutting nozzle element) Figure 15 shows part of the nozzle assembly, an abort valve

Art Unit: 3731

(94) that includes a rotatable shut-off element (126). Campbell describes the shut off element as having an orifice (130) that coincides with the flow path when aligned in the free flow position (column 7, lines 41-45). The flow is blocked when the orifice (130) of the shut-off element (126) is moved to a position not in alignment with the flow path. As indicated by arrows, the shut-off element can move in both rotational and translating directions.

The cutting nozzle element further includes a second flow regulator (92) that has a rotating shut-off element (102) where flow is only permitted when orifices (106 and 104) of both inner and outer tubes are aligned (Figures 12-14). Shut-off member (100) is formed as a hollow shaft.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Plechinger in view of US Patent No. 5,836,909 to Cosmescu.

Plechinger includes all the limitations of claim 13, but fails to include a second pressure-generating device connected to the nozzle element. Cosmescu teaches that fluid delivery systems can have two supply containers that are connected by a Y-connector to a single output tube (column 5, lines 7-15). (Also see Figures 1 and 2-1) This arrangement

Art Unit: 3731

allows for a quick transition between an empty container to a full container, and the empty container can be replaced while the other is in use (column 5, line 57 through column 6, line 11). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a second pressure-generating device having a supply reservoir in the system of Plechinger, as taught by Cosmescu, as this allows an empty reservoir to be replaced with a full container while the system is continuously in operation.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US Patent No. 5,667,102 to Keller – teaches exchangeable cartridges for a fluid system
- US Patent No. 6,216,573 to Moutafis et al. – fluid jet cutting system with detachable parts
- US Patent No. 5,591,184 to McDonnell et al. –nozzle handpiece for fluid jet system
- US Patent No. 6,066,150 to Gonon – handpiece for fluid jet system with shut-off mechanism

Art Unit: 3731


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarah K Webb whose telephone number is (703) 305-7554. The examiner can normally be reached on 8am-4:30pm Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Milano can be reached on 703-308-2496. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3590 for regular communications and (703) 305-3590 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0858.

Sarah K Webb
Examiner
Art Unit 3731

SW
November 4, 2002


Michael Milano
Supervisory Patent Examiner
Art Unit 3700